

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	949	((crystal\$) or (xtal)) same (11-beta-hydroxysteroid dehydrogenase)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/26 11:50
L2	2	((crystal\$) or (xtal)) same ("11-beta-hydroxysteroid dehydrogenase")	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/26 11:46
L3	808	(435/190).CCLS.	US-PGPUB; USPAT; DERWENT	OR	OFF	2007/03/26 11:35
L4	9	L3 and ("11-beta-hydroxysteroid dehydrogenase")	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/26 11:35
L5	0	L4 and crystal\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/26 11:35
L6	5497	(435/183).CCLS.	US-PGPUB; USPAT; DERWENT	OR	OFF	2007/03/26 11:35
L7	0	L5 and crystal\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/26 11:37
L8	3	aertgeerts.in. and dehydrogenase	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/26 11:38
L9	0	brodsky.in. and dehydrogenase	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/26 11:38
L10	697	brodsky.in.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/26 11:38
L11	29	brodsky.in. and crystal	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/26 11:39
L12	96	chi.in. and dehydrogenase	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/26 11:39

## EAST Search History

L13	6	chi.in. and hydroxysteroid	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/26 11:39
L14	6	chi.in. and \$hydroxysteroid\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/26 11:39
L15	0	hilgers.in. and \$hydroxysteroid\$	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/26 11:40
L16	0	hilgers.in. and \$hydroxysteroid	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/26 11:40
L17	3	hilgers.in. and dehydrogenase	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/26 11:40
L18	2	hosfield.in. and dehydrogenase	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/26 11:41
L19	0	skene.in. and dehydrogenase	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/26 11:41
L20	104	((crystal\$) or (xtal)) same (\$hydroxysteroid)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/26 11:46
L21	0	L20 and dehydhydrogenase	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/26 11:50
L22	87	L20 and dehydrogenase	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/26 11:50
S6	195	((crystal\$) or (xtal) or (3D) or (xray) or (x-ray)) same ("calcium channel")	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/05 09:04
S12	240	((crystal\$) or (xtal)) same ("calcium" with "channel")	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2007/03/26 11:31



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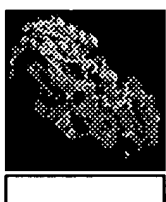
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☒ 1Y5R



**The crystal structure of murine 11b-hydroxysteroid dehydrogenase complexed with corticosterone**

Release Date: 17-May-2005 Exp. Method: X Ray Diffraction

Resolution: 3.00 Å

Characteristics

Classification

**Oxidoreductase**

Compound

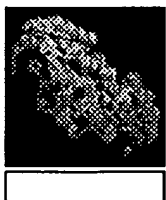
Polymer: 1 Molecule: Corticosteroid 11-beta-dehydrogenase, isozyme 1 Chains: A,B EC

no.: 1.1.1.146

Authors

Zhang, J., Osslund, T.D., Plant, M.H., Clogston, C.L., Nybo, R.E., Xiong, F., Delaney, J.M., Jordai

☒ 1Y5M



**The crystal structure of murine 11b-hydroxysteroid dehydrogenase: an important therapeutic target for diabetes**

Release Date: 17-May-2005 Exp. Method: X Ray Diffraction

Resolution: 2.30 Å

Characteristics

Classification

**Oxidoreductase**

Compound

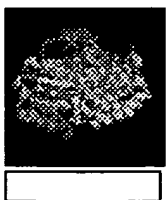
Polymer: 1 Molecule: Corticosteroid 11-beta-dehydrogenase, isozyme 1 Fragment: sequence database residues 24-292 Chains: A,B EC

no.: 1.1.1.146

Authors

Zhang, J., Osslund, T.D., Plant, M.H., Clogston, C.L., Nybo, R.E., Xiong, F., Delaney, J.M., Jordai S.R.

☒ 2BEL



**STRUCTURE OF HUMAN 11-BETA-HYDROXYSTEROID DEHYDROGENASE IN COMPLEX WITH NADP AND CARBENOXOLONE**

Release Date: 06-Dec-2004 Exp. Method: X Ray Diffraction

Resolution: 2.11 Å

Characteristics

Classification

**Oxidoreductase**

Compound

Polymer: 1 Molecule: CORTICOSTEROID 11-BETA-DEHYDROGENASE ISOZYME 1 Fragment: RESIDU

26-284 Chains: A,B,C,D EC no.: 1.1.1.146

Authors

Wu, X., Kavanagh, K., Svensson, S., Elleby, B., M., Von Delft, F., Marsden, B., Jornvall, H., Abrahmsen, L., Oppermann, U.

☒ 1XU9



**Crystal Structure of the Interface Closed Conformation of 11b-hydroxysteroid**



**dehydrogenase isozyme 1**

**Characteristics** Release Date: 02-Nov-2004 Exp. Method: X Ray Diffraction

**Classification** Resolution: 1.55 Å

**Compound** Polymer: 1 Molecule: Corticosteroid 11-beta-dehydrogenase, isozyme 1 Mutation: C272S

Chains: A,B,C,D EC no.: 1.1.1.146

**Authors** Hosfield, D.J., Wu, Y., Skene, R.J., Hilger, M., Jennings, A., Snell, G.P., Aertgeerts, K.

☒ **1XU7**


**Crystal Structure of the Interface Open Conformation of Tetrameric 11b-HSD1**

**Characteristics** Release Date: 02-Nov-2004 Exp. Method: X Ray Diffraction

**Classification** Resolution: 1.80 Å

**Compound** Polymer: 1 Molecule: Corticosteroid 11-beta-dehydrogenase, isozyme 1 Mutation: C272S

Chains: A,B,C,D EC no.: 1.1.1.146

**Authors** Hosfield, D.J., Wu, Y., Skene, R.J., Hilger, M., Jennings, A., Snell, G.P., Aertgeerts, K.

☒ **2IRW**


**Human 11-beta-Hydroxysteroid Dehydrogenase (HSD1) with NADP and Adamantane Ether Inhibitor**

**Characteristics** Release Date: 23-Jan-2007 Exp. Method: X Ray Diffraction

**Classification** Resolution: 3.10 Å

**Compound** Polymer: 1 Molecule: Corticosteroid 11-beta-dehydrogenase isozyme 1 Fragment: dehydrogenas domain (residues 25-288) Chains: A,B,C,D,E,F,G,H

no.: 1.1.1.146

**Authors** Patel, J.R., Shuai, Q., Dinges, J., Winn, M., Pliushchev, M., Fung, S., Monzon, K., Chiou, W., Wang, J., Pan, L., Wagaw, S., Engstrom, K., Kerdesky, F.A., Longenecker, K., Judge, R., W., Imade, H.M., Stolarik, D., Beno, D.W., Brun M., Chovan, L.E., Sham, H.L., Jacobson, P., Link J.T.

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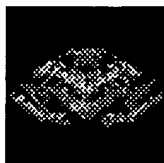
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☒ 1FDS

Characteristics

Classification

Compound

Authors

**HUMAN 17-BETA-HYDROXYSTEROID-DEHYDROGENASE TYPE 1 COMPLEXED WITH 17-BETA-ESTRADIOL**

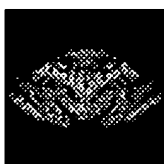
Release Date: 12-Feb-1997 Exp. Method: X Ray Diffraction

Resolution: 1.70 Å

Dehydrogenase

Polymer: 1 Molecule: 17-BETA-HYDROXYSTEROID-DEHYDROGENASE Chains: \_ EC no.: 1.1.1.62

Breton, R., Housset, D., Mazza, C., Fontecilla-Camps, J.C.

☒ 1FDT

Characteristics

Classification

Compound

Authors

**HUMAN 17-BETA-HYDROXYSTEROID-DEHYDROGENASE TYPE 1 COMPLEXED WITH ESTRADIOL AND NADP+**

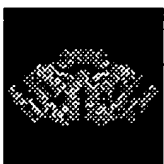
Release Date: 12-Feb-1997 Exp. Method: X Ray Diffraction

Resolution: 2.20 Å

Dehydrogenase

Polymer: 1 Molecule: 17-BETA-HYDROXYSTEROID-DEHYDROGENASE Chains: \_ EC no.: 1.1.1.62

Breton, R., Housset, D., Mazza, C., Fontecilla-Camps, J.C.

☒ 1A27

Characteristics

Classification

Compound

Authors

**HUMAN 17-BETA-HYDROXYSTEROID-DEHYDROGENASE TYPE 1 C-TERMINAL DELETION MUTANT COMPLEXED WITH ESTRADIOL AND NADP+**

Release Date: 27-May-1998 Exp. Method: X Ray Diffraction

Resolution: 1.90 Å

Dehydrogenase

Polymer: 1 Molecule: 17-BETA-HYDROXYSTEROID-DEHYDROGENASE Mutation: C-TERMINAL DELE (290 - 327) Chains: \_ EC no.: 1.1.1.62

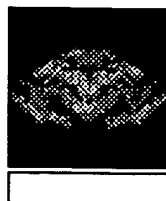
Mazza, C.


☒ 1FDW

Characteristics

**HUMAN 17-BETA-HYDROXYSTEROID-DEHYDROGENASE TYPE 1 MUTANT H221Q COMPLEXED WITH ESTRADIOL**

Release Date: 27-May-1998 Exp. Method: X Ray Diffraction

**Classification****Resolution:** 2.70 Å**Dehydrogenase****Compound**

Polymer: 1 Molecule: 17-BETA-HYDROXYSTEROID  
 DEHYDROGENASE Mutation: H221Q Chains: \_ E  
 no.: 1.1.1.62 

**Authors**

**Mazza, C., Breton, R., Housset, D., Fontecilla-Camps, J.C.**

☒ **1RAL**

**THREE-DIMENSIONAL STRUCTURE OF RAT LIVER 3ALPHA-HYDROXYSTEROID(SLASH) DIHYDRODIOL DEHYDROGENASE: A MEMBER OF THE ALDO-KETO REDUCTASE SUPERFAMILY**

**Characteristics****Release Date:** 30-Apr-1994 **Exp. Method:** X Ray Diffractor**Classification****Resolution:** 3.00 Å**Oxidoreductase****Compound**

Polymer: 1 Molecule: 3-ALPHA-HYDROXYSTEROID  
 DEHYDROGENASE Chains: \_ EC no.: 1.1.1.50 

**Authors**

**Hoog, S.S., Pawlowski, J.E., Alzari, P.M., Pennir T.M., Lewis, M.**

☒ **1IOL**

**ESTROGENIC 17-BETA HYDROXYSTEROID DEHYDROGENASE COMPLEXED 17-BETA-ESTRADIOL**

**Characteristics****Release Date:** 07-Jul-1997 **Exp. Method:** X Ray Diffraction**Classification****Resolution:** 2.30 Å**Oxidoreductase****Compound**

Polymer: 1 Molecule: ESTROGENIC 17-BETA  
 HYDROXYSTEROID DEHYDROGENASE Chains: \_  
 EC no.: 1.1.1.62 

**Authors**

**Azzi, A., Rehse, P.H., Zhu, D.W., Campbell, R.L., Labrie, F., Lin, S.X.**

☒ **1BHS**

**HUMAN ESTROGENIC 17BETA-HYDROXYSTEROID DEHYDROGENASE**

**Characteristics****Release Date:** 07-Dec-1996 **Exp. Method:** X Ray Diffractor**Classification****Resolution:** 2.20 Å**Oxidoreductase****Compound**

Polymer: 1 Molecule: 17BETA-HYDROXYSTEROID  
 DEHYDROGENASE Chains: \_ EC no.: 1.1.1.62 

**Authors**

**Ghosh, D., Pletnev, V.Z., Zhu, D.W., Wawrzak, Z., Duax, W.L., Pangborn, W., Labrie, F., Lin, S.**

☒ **1DHT**

**ESTROGENIC 17-BETA HYDROXYSTEROID DEHYDROGENASE COMPLEXED DIHYDROTESTOSTERONE**

**Characteristics****Release Date:** 25-Sep-1999 **Exp. Method:** X Ray Diffractor**Classification****Resolution:** 2.24 Å**Oxidoreductase****Compound**

Polymer: 1 Molecule: ESTROGENIC 17-BETA  
 HYDROXYSTEROID DEHYDROGENASE Chains: \_  
 EC no.: 1.1.1.62 

**Authors**

**Han, Q., Campbell, R.L., Gangloff, A., Huang, Y.W., Lin, S.X.**

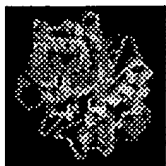
☒ 3DHE
**ESTROGENIC 17-BETA HYDROXYSTEROID  
DEHYDROGENASE COMPLEXED  
DEHYDROEPIANDROSTERONE**
**Characteristics**

Release Date: 25-Sep-1999 Exp. Method: X Ray Diffraction

Resolution: 2.30 Å

**Classification****Oxidoreductase****Compound**Polymer: 1 Molecule: ESTROGENIC 17-BETA  
HYDROXYSTEROID DEHYDROGENASE Chains: 1

EC no.: 1.1.1.62

**Authors****Han, Q., Campbell, R.L., Gangloff, A., Huang,  
Y.W., Lin, S.X.**☒ 2F38
**Crystal structure of prostaglandin F synthase  
containing bimatoprost**
**Characteristics**

Release Date: 31-Oct-2006 Exp. Method: X Ray Diffraction

Resolution: 2.00 Å

**Classification****Oxidoreductase****Compound**Polymer: 1 Molecule: Aldo-keto reductase family 1  
member C3 Chains: A EC no.: 1.3.1.20 

1.1.1.213 1.1.1.188 1.1.1.62

**Authors****Komoto, J., Yamada, T., Watanabe, K., Woodwa  
D.F., Takusagawa, F.**

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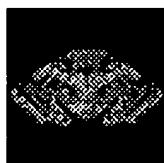
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☒ 1QYV



**Characteristics**

**Classification**

**Compound**

**Authors**

**Crystal structure of human estrogenic 17beta-hydroxysteroid dehydrogenase complex with NADP**

**Release Date:** 03-Aug-2004 **Exp. Method:** X Ray Diffraction

**Resolution:** 1.81 Å

**Oxidoreductase**

**Polymer:** 1 **Molecule:** Estradiol 17 beta-dehydrogenas

**Chains:** A **EC no.:** 1.1.1.62

**Shi, R., Lin, S.X.**

☒ 1QYW



**Characteristics**

**Classification**

**Compound**

**Authors**

**Crystal structure of human estrogenic 17beta-hydroxysteroid dehydrogenase complex with androstenedione and NADP**

**Release Date:** 03-Aug-2004 **Exp. Method:** X Ray Diffraction

**Resolution:** 1.63 Å

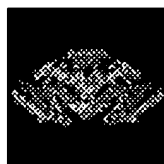
**Oxidoreductase**

**Polymer:** 1 **Molecule:** Estradiol 17 beta-dehydrogenas

**Chains:** A **EC no.:** 1.1.1.62

**Shi, R., Lin, S.X.**

☒ 1QYX



**Characteristics**

**Classification**

**Compound**

**Authors**

**Crystal structure of human estrogenic 17beta-hydroxysteroid dehydrogenase complex with androstenedione and NADP**

**Release Date:** 03-Aug-2004 **Exp. Method:** X Ray Diffraction

**Resolution:** 1.89 Å

**Oxidoreductase**

**Polymer:** 1 **Molecule:** Estradiol 17 beta-dehydrogenas

**Chains:** A **EC no.:** 1.1.1.62

**Shi, R., Lin, S.X.**

☒ 1AFS



**Characteristics**

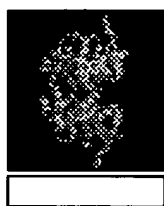
**RECOMBINANT RAT LIVER 3-ALPHA-HYDROXYSTEROID DEHYDROGENASE (3-ALPHA-HSD) COMPLEXED WITH NADP AND TESTOSTERONE**

**Release Date:** 08-Oct-1997 **Exp. Method:** X Ray Diffraction

**Resolution:** 2.50 Å

**Oxidoreductase**



**Classification****Compound****Authors**

Polymer: 1 Molecule: 3-ALPHA-HYDROXYSTEROID DEHYDROGENASE Chains: A,B EC no.: 1.1.1.50  
 Bennett, M.J., Albert, R.H., Jez, J.M., Ma, H., Penning, T.M., Lewis, M.

☒ **1AHH****7 ALPHA-HYDROXYSTEROID DEHYDROGENASE COMPLEXED WITH NAD+****Characteristics****Classification****Compound**

Release Date: 14-Oct-1996 Exp. Method: X Ray Diffraction  
 Resolution: 2.30 Å

**Oxidoreductase**

Polymer: 1 Molecule: 7 ALPHA-HYDROXYSTEROID DEHYDROGENASE Chains: A,B EC no.: 1.1.1.159

**Authors**

Tanaka, N., Nonaka, T., Tanabe, T., Yoshimoto, T., Tsuru, D., Mitsui, Y.

☒ **1AHI****7 ALPHA-HYDROXYSTEROID DEHYDROGENASE COMPLEXED WITH NADH AND 7-OXO GLYCOCHENODEOXYCHOLIC ACID****Characteristics****Classification****Compound**

Release Date: 14-Oct-1996 Exp. Method: X Ray Diffraction  
 Resolution: 2.30 Å

**Oxidoreductase**

Polymer: 1 Molecule: 7 ALPHA-HYDROXYSTEROID DEHYDROGENASE Chains: A,B EC no.: 1.1.1.159

**Authors**

Tanaka, N., Nonaka, T., Tanabe, T., Yoshimoto, T., Tsuru, D., Mitsui, Y.

☒ **1FMC****7-ALPHA-HYDROXYSTEROID DEHYDROGENASE COMPLEX WITH NADH AND 7-OXO GLYCOCHENODEOXYCHOLIC ACID****Characteristics****Classification****Compound**

Release Date: 08-Nov-1996 Exp. Method: X Ray Diffraction  
 Resolution: 1.80 Å

**Oxidoreductase**

Polymer: 1 Molecule: 7 ALPHA-HYDROXYSTEROID DEHYDROGENASE Chains: A,B EC no.: 1.1.1.159  
 Other Details: LIGANDS ARE NADH AND 7-OXO GLYCOCHENODEOXYCHOLIC ACID (CHO)

**Authors**

Tanaka, N., Nonaka, T., Tanabe, T., Yoshimoto, T., Tsuru, D., Mitsui, Y.

☒ **1LWI****3-ALPHA-HYDROXYSTEROID/DIHYDRODIOL DEHYDROGENASE FROM RATTUS NORVEGICUS****Characteristics****Classification****Compound**

Release Date: 07-Dec-1996 Exp. Method: X Ray Diffraction  
 Resolution: 2.70 Å

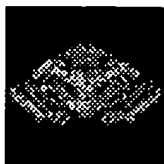
**Oxidoreductase**

Polymer: 1 Molecule: 3-ALPHA-HYDROXYSTEROID/DIHYDRODIOL DEHYDROGENASE Chains: A,B EC no.: 1.1.1.213  
 Other Details: FORMERLY EC 1.1.1.50, HOWEVER, NEW CONVENTION DISTINGUISHES THIS AS AN

## CLASS DEHYDROGENASE

## Authors

Bennett, M.J., Schlegel, B.P., Jez, J.M., Penning, T.M., Lewis, M.

☒ 1ISR**TYPE 1 17-BETA HYDROXYSTEROID DEHYDROGENASE EM1745 COMPLEX****Characteristics**

Release Date: 11-Mar-2003 Exp. Method: X Ray Diffraction

Resolution: 1.60 Å

**Classification**

**Oxidoreductase**

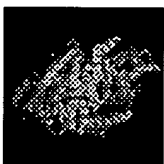
**Compound**

Polymer: 1 Molecule: TYPE 1 17 BETA-HYDROXYSTEROID DEHYDROGENASE Chains: ,

EC no.: 1.1.1.62

**Authors**

Qiu, W., Campbell, R.L., Gangloff, A., Dupuis, P., Boivin, R.P., Tremblay, M.R., Poirier, D., Lin, S.X.

☒ 1FDU**HUMAN 17-BETA-HYDROXYSTEROID-DEHYDROGENASE TYPE 1 MUTANT H221L COMPLEXED WITH ESTRADIOL AND NADP+****Characteristics**

Release Date: 27-May-1998 Exp. Method: X Ray Diffraction

Resolution: 2.70 Å

**Classification**

**Dehydrogenase**

**Compound**

Polymer: 1 Molecule: 17-BETA-HYDROXYSTEROID DEHYDROGENASE Mutation: H221L Chains: A,B,C

EC no.: 1.1.1.62

**Authors**

Mazza, C., Breton, R., Housset, D., Fontecilla-Camps, J.C.





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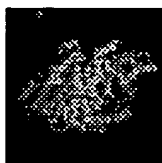
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☒ **1FDV**



**HUMAN 17-BETA-HYDROXYSTEROID-DEHYDROGENASE TYPE 1 MUTANT H221L COMPLEXED WITH NAD+**



**Characteristics**

Release Date: 27-May-1998 Exp. Method: X Ray Diffraction

**Classification**

Resolution: 3.10 Å

**Dehydrogenase**

**Compound**

Polymer: 1 Molecule: 17-BETA-HYDROXYSTEROID DEHYDROGENASE Mutation: H221L Chains: A,B,C

EC no.: 1.1.1.62

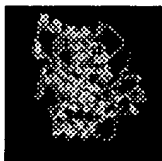
**Authors**

Mazza, C., Breton, R., Housset, D., Fontecilla-Camps, J.C.

☒ **2FGB**



**Crystal structure of human 17bet a-hydroxysteroid dehydrogenase type 5 in complexes with PEG and NADP**



**Characteristics**

Release Date: 12-Dec-2006 Exp. Method: X Ray Diffraction

**Classification**

Resolution: 1.35 Å

**Oxidoreductase**

**Compound**

Polymer: 1 Molecule: Aldo-keto reductase family 1 member C3 Chains: A EC no.: 1.1.1.62

1.1.1.213 1.1.1.188

**Authors**

Qiu, W., Zhou, M., Azzi, A., Ghanmi, D., Luu-Thi V., Labrie, F., Lin, S.X.

☒ **1YB1**



**Crystal structure of human 17-beta-hydroxysteroid dehydrogenase type XI**



**Characteristics**

Release Date: 28-Dec-2004 Exp. Method: X Ray Diffraction

**Classification**

Resolution: 1.95 Å

**Oxidoreductase**

**Compound**

Polymer: 1 Molecule: 17-beta-hydroxysteroid dehydrogenase type XI Chains: A,B EC no.: 1.1.1.6

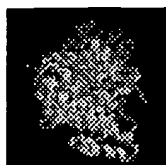
**Authors**

Lukacik, P., Bunkoczi, G., Kavanagh, K., Ng, S., Delft, F., Bray, J., Edwards, A., Arrowsmith, C., Sundstrom, M., Oppermann, U.

☒ **1FK8**



**THE CRYSTAL STRUCTURE OF THE BINARY COMPLEX WITH NAD OF 3-ALPHA-HYDROXYSTEROID DEHYDROGENASE FROM**

**Characteristics****COMAMONAS TESTOSTERONI, A MEMBER OF THE SHORT CHAIN DEHYDROGENASE/REDUCTASE FAMILY**

Release Date: 17-Jan-2001 Exp. Method: X Ray Diffraction

Resolution: 1.95 Å

**Classification****Oxidoreductase****Compound**

Polymer: 1 Molecule: 3ALPHA-HYDROXYSTEROID DEHYDROGENASE/CARBONYL REDUCTASE

Chains: A,B EC no.: 1.1.1.50

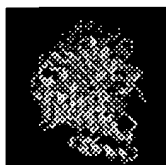
**Authors**

Grimm, C., Maser, E., Mobus, E., Klebe, G., Reut K., Ficner, R.

☒ **1FJH****THE CRYSTAL STRUCTURE OF 3-ALPHA-HYDROXYSTEROID DEHYDROGENASE FROM COMAMONAS TESTOSTERONI, A MEMBER OF THE SHORT CHAIN DEHYDROGENASE/REDUCTASE FAMILY**

Release Date: 17-Jan-2001 Exp. Method: X Ray Diffraction

Resolution: 1.68 Å

**Characteristics****Classification****Oxidoreductase****Compound**

Polymer: 1 Molecule: 3ALPHA-HYDROXYSTEROID DEHYDROGENASE/CARBONYL REDUCTASE

Chains: A,B EC no.: 1.1.1.50

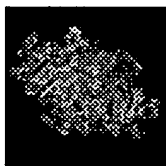
**Authors**

Grimm, C., Maser, E., Mobus, E., Klebe, G., Reut K., Ficner, R.

☒ **2HSD****THE REFINED THREE-DIMENSIONAL STRUCTURE OF 3ALPHA,20BETA-HYDROXYSTEROID DEHYDROGENASE AND POSSIBLE ROLES OF THE RESIDUES CONSERVED IN SHORT-CHAIN DEHYDROGENASES**

Release Date: 31-Aug-1994 Exp. Method: X Ray Diffraction

Resolution: 2.64 Å

**Characteristics****Classification****Oxidoreductase****Compound**

Polymer: 1 Molecule: 3-ALPHA, 20 BETA-HYDROXYSTEROID DEHYDROGENASE

Chains: A,B,C,D EC no.: 1.1.1.53

**Authors**

Ghosh, D., Wawrzak, Z., Weeks, C.M., Duax, W.L., Erman, M.

☒ **1ZQ5****Crystal structure of human androgenic 17beta-hydroxysteroid dehydrogenase type 5 in complexed with a potent inhibitor EM1404**

Release Date: 12-Dec-2006 Exp. Method: X Ray Diffraction

Resolution: 1.30 Å

**Characteristics****Classification****Oxidoreductase****Compound**

Polymer: 1 Molecule: Aldo-keto reductase family 1

member C3 Chains: A EC no.: 1.1.1.62 1.3.1.21

1.1.1.188

**Authors**

Qiu, W., Zhou, M., Ghanmi, D., Luu-The, V., Lab F., Lin, S.-X.

☒ **1HDC****MECHANISM OF INHIBITION OF 3ALPHA,20BETA-HYDROXYSTEROID**

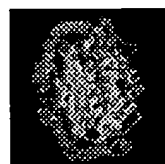
**DEHYDROGENASE BY A LICORICE-DERIVED STEROIDAL INHIBITOR****Characteristics****Release Date:** 07-Feb-1995 **Exp. Method:** X Ray Diffraction**Classification****Resolution:** 2.20 Å**Oxidoreductase****Compound**

Polymer: 1 Molecule: 3-ALPHA, 20 BETA-HYDROXYSTEROID DEHYDROGENASE

Chains: A,B,C,D EC no.: 1.1.1.53

**Authors****Ghosh, D., Erman, M., Wawrzak, Z., Duax, W.L., Pangborn, W.**☒ **1JTV****Crystal structure of 17beta-Hydroxysteroid Dehydrogenase Type 1 complexed with Testosterone****Characteristics****Release Date:** 24-Jun-2003 **Exp. Method:** X Ray Diffraction**Classification****Resolution:** 1.54 Å**Oxidoreductase****Compound**

Polymer: 1 Molecule: 17 beta-hydroxysteroid dehydrogenase type 1 Chains: A EC no.: 1.1.1.62

**Authors****Gangloff, A., Shi, R., Nahoum, V., Lin, S.X.**☒ **1EQU****TYPE 1 17-BETA HYDROXYSTEROID DEHYDROGENASE EQUILIN COMPLEXED WITH NADP+****Characteristics****Release Date:** 02-Dec-1999 **Exp. Method:** X Ray Diffraction**Classification****Resolution:** 3.00 Å**Oxidoreductase****Compound**

Polymer: 1 Molecule: PROTEIN (ESTRADIOL 17 BETA DEHYDROGENASE 1) Chains: A,B EC no.: 1.1.1.62

**Authors****Sawicki, M.W., Erman, M., Puranen, T., Vihko, P., Ghosh, D.**

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☒ 2DKN



**Crystal structure of the 3-alpha-hydroxysteroid dehydrogenase from Pseudomonas sp. B-0831 complexed with NADH**



**Characteristics**

Release Date: 15-Aug-2006 Exp. Method: X Ray Diffraction

**Classification**

Resolution: 1.80 Å

**Compound**

Polymer: 1 Molecule: 3-alpha-hydroxysteroid dehydrogenase Chains: A,B EC no.: 1.1.1.50

Nakamura, S., Oda, M., Kataoka, S., Ueda, S., Uchiyama, S., Yoshida, T., Kobayashi, Y., Ohkubo, T.

**Authors**

☒ 1Y5R



**The crystal structure of murine 11b-hydroxysteroid dehydrogenase complexed with corticosterone**



**Characteristics**

Release Date: 17-May-2005 Exp. Method: X Ray Diffraction

**Classification**

Resolution: 3.00 Å

**Compound**

Polymer: 1 Molecule: Corticosteroid 11-beta-dehydrogenase, isozyme 1 Chains: A,B EC no.: 1.1.1.146

**Authors**

Zhang, J., Osslund, T.D., Plant, M.H., Clogston, C.L., Nybo, R.E., Xiong, F., Delaney, J.M., Jordai

☒ 1IKT



**LIGANDED STEROL CARRIER PROTEIN TYPE 2 (SCP-2) LIKE DOMAIN OF HUMAN MULTIFUNCTIONAL ENZYME TYPE 2 (MFE-2)**



**Characteristics**

Release Date: 14-Nov-2001 Exp. Method: X Ray Diffraction

**Classification**

Resolution: 1.75 Å

**Compound**

Polymer: 1 Molecule: ESTRADIOL 17 BETA-DEHYDROGENASE 4 Fragment: C-terminal domain Residues 618-736 Chains: A EC no.: 1.1.1.62

Haapalainen, A.M., van Aalten, D.M., Merilainen G., Jalonen, J.E., Pirila, P., Wierenga, R.K., Hiltunen, J.K., Glumoff, T.

**Authors**

☒ 1IHI



**Crystal Structure of Human Type III 3-alpha-Hydroxysteroid Dehydrogenase/Bile Acid**

**Characteristics****Classification****Compound****Authors****Binding Protein (AKR1C2) Complexed with NADP+ and Ursodeoxycholate**

Release Date: 03-Oct-2001 Exp. Method: X Ray Diffraction

Resolution: 3.00 Å

**Oxidoreductase**

Polymer: 1 Molecule: 3-ALPHA-HYDROXYSTEROID DEHYDROGENASE Chains: A,B EC no.: 1.1.1.52

Jin, Y., Stayrook, S.E., Albert, R.H., Palackal, N.T., Penning, T.M., Lewis, M.

☒ **1Q13****Characteristics****Classification****Compound****Authors****Crystal structure of rabbit 20alpha hydroxysteroid dehydrogenase in ternary complex with NADP and testosterone**

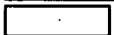
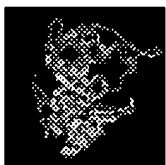
Release Date: 16-Nov-2004 Exp. Method: X Ray Diffraction

Resolution: 2.08 Å

**Oxidoreductase**

Polymer: 1 Molecule: Prostaglandin-E2 9-reductase Chains: A,B EC no.: 1.1.1.189 1.1.1.149

Couture, J.-F., Legrand, P., Cantin, L., Labrie, F., Luu-The, V., Breton, R.

☒ **1RY0****Characteristics****Classification****Compound****Authors****Structure of prostaglandin F synthase with prostaglandin D2**

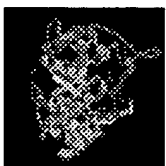
Release Date: 02-Nov-2004 Exp. Method: X Ray Diffraction

Resolution: 1.69 Å

**Oxidoreductase**

Polymer: 1 Molecule: Aldo-keto reductase family 1 member C3 Chains: A,B EC no.: 1.1.1.- 1.3.1.20 1.1.1.188

Komoto, J., Yamada, T., Watanabe, K., Takusagawa, F.

☒ **1RY8****Characteristics****Classification****Compound****Authors****Prostaglandin F synthase complexed with NADPH and rutin**

Release Date: 02-Nov-2004 Exp. Method: X Ray Diffraction

Resolution: 1.69 Å

**Oxidoreductase**

Polymer: 1 Molecule: Aldo-keto reductase family 1 member C3 Chains: A,B EC no.: 1.1.1.- 1.3.1.20 1.1.1.188

Komoto, J., Yamada, T., Watanabe, K., Takusagawa, F.

☒ **1Y5M****Characteristics****Classification****Compound****The crystal structure of murine 11b-hydroxysteroid dehydrogenase: an important therapeutic target for diabetes**


Release Date: 17-May-2005 Exp. Method: X Ray Diffraction

Resolution: 2.30 Å

**Oxidoreductase**

Polymer: 1 Molecule: Corticosteroid 11-beta-dehydrogenase, isozyme 1 Fragment: sequence

database residues 24-292 Chains: A,B EC

no.: 1.1.1.146 

**Authors** Zhang, J., Osslund, T.D., Plant, M.H., Clogston, C.L., Nybo, R.E., Xiong, F., Delaney, J.M., Jordan, S.R.


☒ 1ZBQ**Crystal Structure Of Human 17-Beta-Hydroxysteroid Dehydrogenase Type 4 In Complex With NAD****Characteristics**

Release Date: 26-Apr-2005 Exp. Method: X Ray Diffraction

Resolution: 2.19 Å

**Classification****Oxidoreductase****Compound**

Polymer: 1 Molecule: 17-beta-hydroxysteroid dehydrogenase 4 Fragment: N-terminal SHORT CH, DEHYDROGENASE DOMAIN Chains: A,B,C,D,E,F



no.: 1.1.1.35 **Authors**

Lukacik, P., Shafqat, N., Kavanagh, K., Bray, J., Delft, F., Edwards, A., Arrowsmith, C., Sundstro M., Oppermann, U.

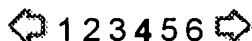
☒ 2HDJ**Crystal structure of human type 3 3alpha-hydroxysteroid dehydrogenase in complex with NADP(H)****Characteristics**

Release Date: 05-Dec-2006 Exp. Method: X Ray Diffraction

Resolution: 2.00 Å

**Classification****Oxidoreductase****Compound**Polymer: 1 Molecule: Aldo-keto reductase family 1 member C2 Chains: A,B EC no.: 1.-.-.- 1.3.1.20   
1.1.1.213 **Authors**

Faucher, F., Pereira de Jesus-Tran, K., Cantin, L., Luu-The, V., Labrie, F., Breton, R.



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☒ 1Q5M



**Binary complex of rabbit 20alpha-hydroxysteroid dehydrogenase with NADPH**

Release Date: 18-May-2004 Exp. Method: X Ray Diffraction

Resolution: 1.32 Å

**Characteristics**

**Classification**

**Oxidoreductase**

**Compound**

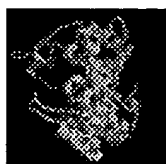
Polymer: 1 Molecule: Prostaglandin-E2 9-reductase

Chains: A,B EC no.: 1.1.1.189 1.1.1.149

**Authors**

Couture, J.F., Legrand, P., Cantin, L., Labrie, F., Luu-The, V., Breton, R.

☒ 1S1R



**Crystal structures of prostaglandin D2 11-ketoreductase (AKR1C3) in complex with the non-steroidal anti-inflammatory drugs flufenamic acid and indomethacin**

Release Date: 23-Mar-2004 Exp. Method: X Ray Diffraction

Resolution: 2.00 Å

**Characteristics**

**Classification**

**Oxidoreductase**

**Compound**

Polymer: 1 Molecule: Aldo-keto reductase family 1

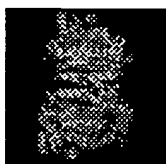
member C3 Chains: A EC no.: 1.1.1.213

1.3.1.20 1.1.1.62

**Authors**

Lovering, A.L., Ride, J.P., Bunce, C.M., Desmond J.C., Cummings, S.M., White, S.A.

☒ 1XU9



**Crystal Structure of the Interface Closed Conformation of 11b-hydroxysteroid dehydrogenase isozyme 1**

Release Date: 02-Nov-2004 Exp. Method: X Ray Diffraction

Resolution: 1.55 Å

**Characteristics**

**Classification**

**Oxidoreductase**

**Compound**

Polymer: 1 Molecule: Corticosteroid 11-beta-dehydrogenase, isozyme 1 Mutation: C272S

Chains: A,B,C,D EC no.: 1.1.1.146

**Authors**

Hosfield, D.J., Wu, Y., Skene, R.J., Hilger, M., Jennings, A., Snell, G.P., Aertgeerts, K.

☒ 1XU7



**Crystal Structure of the Interface Open Conformation of Tetrameric 11b-HSD1**

Release Date: 02-Nov-2004 Exp. Method: X Ray Diffraction

**Characteristics** Resolution: 1.80 Å**Classification** Oxidoreductase**Compound**

Polymer: 1 Molecule: Corticosteroid 11-beta-dehydrogenase, isozyme 1 Mutation: C272S

Chains: A,B,C,D EC no.: 1.1.1.146

**Authors**

Hosfield, D.J., Wu, Y., Skene, R.J., Hilger, M., Jennings, A., Snell, G.P., Aertgeerts, K.

☒ 2BEL**STRUCTURE OF HUMAN 11-BETA-HYDROXYSTEROID DEHYDROGENASE IN COMPLEX WITH NADP AND CARBENOXOLONE**

Release Date: 06-Dec-2004 Exp. Method: X Ray Diffraction

Resolution: 2.11 Å

**Characteristics****Classification**

Oxidoreductase

**Compound**

Polymer: 1 Molecule: CORTICOSTEROID 11-BETA-DEHYDROGENASE ISOZYME 1 Fragment: RESIDU

26-284 Chains: A,B,C,D EC no.: 1.1.1.146

**Authors**

Wu, X., Kavanagh, K., Svensson, S., Elleby, B., M., Von Delft, F., Marsden, B., Jornvall, H., Abrahmsen, L., Oppermann, U.

☒ 1MRQ**Crystal structure of human 20alpha-HSD in ternary complex with NADP and 20alpha-hydroxy-progesterone**

Release Date: 30-Sep-2003 Exp. Method: X Ray Diffraction

Resolution: 1.59 Å

**Characteristics****Classification**

Oxidoreductase

**Compound**

Polymer: 1 Molecule: Aldo-keto reductase family 1 member C1 Chains: A EC no.: 1.1.1.149

**Authors**

Couture, J.F., Legrand, P., Cantin, L., Luu-The, V., Labrie, F., Breton, R.

☒ 1E3S**RAT BRAIN 3-HYDROXYACYL-COA DEHYDROGENASE BINARY COMPLEX WITH NADH**

Release Date: 25-May-2001 Exp. Method: X Ray Diffraction

Resolution: 2.00 Å

**Characteristics****Classification**

Oxidoreductase

**Compound**

Polymer: 1 Molecule: SHORT CHAIN 3-HYDROXYAC COA DEHYDROGENASE Chains: A,B,C,D EC

no.: 1.1.1.135

**Authors**

Powell, A.J., Read, J.A., Banfield, M.J., Gunn-Mc F., Yan, S.D., Lustbader, J., Stern, A.R., Stern, D.M., Brady, R.L.

☒ 1E3W**RAT BRAIN 3-HYDROXYACYL-COA DEHYDROGENASE BINARY COMPLEX WITH NADH AND 3-KETO BUTYRATE**



Release Date: 25-May-2001 Exp. Method: X Ray Diffraction

Resolution: 2.00 Å

**Characteristics****Classification**

Dehydrogenase

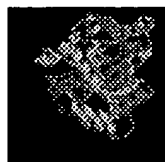
Polymer: 1 Molecule: SHORT CHAIN 3-HYDROXYAC COA DEHYDROGENASE Chains: A EC no.:

**Compound** no.: 1.1.1.35   
 Polymer: 2 Molecule: SHORT CHAIN 3-HYDROXYACYL-COA DEHYDROGENASE Chains: B,C,D EC  
**Authors** no.: 1.1.1.35   
 Powell, A.J., Read, J.A., Banfield, M.J., Gunn-Moore, F., Yan, S.D., Lustbader, J., Stern, A.R., Stern, D.M., Brady, R.L.

☒ 2FVL



**Crystal structure of human 3-alpha hydroxysteroid/dihydrodiol dehydrogenase (AKR1C4) complexed with NADP+**



**Characteristics**


Release Date: 21-Feb-2006 Exp. Method: X Ray Diffraction


Resolution: 2.40 Å

**Classification**

**Oxidoreductase**

**Compound**

Polymer: 1 Molecule: Aldo-keto reductase family 1, member C4 Chains: A,B,C EC no.: 1.1.1.225 

1.1.1.50 

**Authors**

Ugochukwu, E., Smee, C., Guo, K., Lukacik, P., Kavanagh, K., Debreczeni, J.E., von Delft, F., Weigelt, J., Sundstrom, M., Arrowsmith, C., Edwards, A., Oppermann, U.

☒ 1HXH



**COMAMONAS TESTOSTERONI 3BETA/17BETA HYDROXYSTEROID DEHYDROGENASE**



**Characteristics**

Release Date: 25-Dec-2002 Exp. Method: X Ray Diffraction

Resolution: 1.22 Å

**Classification**

**Oxidoreductase**

**Compound**

Polymer: 1 Molecule: 3BETA/17BETA-HYDROXYSTEROID DEHYDROGENASE

Chains: A,B,C,D EC no.: 1.1.1.51 

**Authors**

Benach, J., Filling, C., Oppermann, U.C.T., Rove P., Bricogne, G., Berndt, K.D., Jornvall, H., Ladenstein, R.

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**Crystal structures of prostaglandin D2 11-ketoreductase (AKR1C3) in complex with the non-steroidal anti-inflammatory drugs flufenamic acid and indomethacin**

**Release Date:** 23-Mar-2004 **Exp. Method:** X Ray Diffraction

**Resolution:** 1.20 Å

**Oxidoreductase**

Polymer: 1 Molecule: Aldo-keto reductase family 1

member C3 Chains: A EC no.: 1.1.1.213

1.3.1.20 1.1.1.62

**Lovering, A.L., Ride, J.P., Bunce, C.M., Desmond J.C., Cummings, S.M., White, S.A.**



**Characteristics**

**Classification**

**Compound**

**Authors**

☒ **2HE8**



**Crystal structure of 17alpha-hydroxysteroid dehydrogenase in its apo-form**

**Release Date:** 05-Dec-2006 **Exp. Method:** X Ray Diffraction

**Resolution:** 1.90 Å

**Oxidoreductase**

Polymer: 1 Molecule: Aldo-keto reductase family 1, member C21 Chains: A,B

**Faucher, F., Pereira de Jesus-Tran, K., Cantin, L., Luu-The, V., Labrie, F., Breton, R.**



**Characteristics**

**Classification**

**Compound**

**Authors**

☒ **2IRW**



**Human 11-beta-Hydroxysteroid Dehydrogenase (HSD1) with NADP and Adamantane Ether Inhibitor**

**Release Date:** 23-Jan-2007 **Exp. Method:** X Ray Diffraction

**Resolution:** 3.10 Å

**Oxidoreductase**

Polymer: 1 Molecule: Corticosteroid 11-beta-dehydrogenase isozyme 1 Fragment: dehydrogenas domain (residues 25-288) Chains: A,B,C,D,E,F,G,H

no.: 1.1.1.146

**Patel, J.R., Shuai, Q., Dinges, J., Winn, M., Pliushchev, M., Fung, S., Monzon, K., Chiou, W., Wang, J., Pan, L., Wagaw, S., Engstrom, K., Kerdesky, F.A., Longenecker, K., Judge, R., W., Imade, H.M., Stolarik, D., Beno, D.W., Brun M., Chovan, L.E., Sham, H.L., Jacobson, P., Link J.T.**



**Characteristics**

**Classification**

**Compound**

**Authors**

☒ 2HEJ

**Crystal structure of 17alpha-hydroxysteroid dehydrogenase in complex with NADP(H) in a closed conformation**

**Characteristics**

Release Date: 05-Dec-2006 Exp. Method: X Ray Diffraction

Resolution: 1.35 Å

**Classification****Oxidoreductase****Compound**

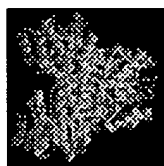
Polymer: 1 Molecule: Aldo-keto reductase family 1, member C21 Chains: A,B

**Authors**

Faucher, F., Pereira de Jesus-Tran, K., Cantin, L., Luu-The, V., Labrie, F., Breton, R.

☒ 1GZ6

**(3R)-HYDROXYACYL-COA DEHYDROGENASE FRAGMENT OF RAT PEROXISOMAL MULTIFUNCTIONAL ENZYME TYPE 2**

**Characteristics**

Release Date: 24-Jan-2003 Exp. Method: X Ray Diffraction

Resolution: 2.38 Å

**Classification****Dehydrogenase****Compound**

Polymer: 1 Molecule: ESTRADIOL 17 BETA-DEHYDROGENASE 4 Fragment: (3R)-HYDROXYACOA DEHYDROGENASE FRAGMENT, RESIDUES

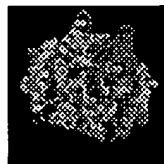
319 Chains: A,B,C,D EC no.: 1.1.1.62

**Authors**

Haapalainen, A.M., Koski, M.K., Qin, Y.M., Hiltun J.K., Glumoff, T.

☒ 2HE5

**Crystal structure of 17alpha-hydroxysteroid dehydrogenase in binary complex with NADP (H) in an open conformation**

**Characteristics**

Release Date: 05-Dec-2006 Exp. Method: X Ray Diffraction

Resolution: 2.90 Å

**Classification****Oxidoreductase****Compound**

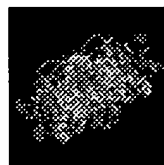
Polymer: 1 Molecule: Aldo-keto reductase family 1, member C21 Chains: A,B,C,D

**Authors**

Faucher, F., Pereira de Jesus-Tran, K., Cantin, L., Luu-The, V., Labrie, F., Breton, R.

☒ 1NFF

**Crystal structure of Rv2002 gene product from Mycobacterium tuberculosis**

**Characteristics**

Release Date: 30-Dec-2002 Exp. Method: X Ray Diffraction

Resolution: 1.80 Å

**Classification****Oxidoreductase****Compound**

Polymer: 1 Molecule: Putative oxidoreductase Rv200: Mutation: I6T, V47M, T69K Chains: A,B EC

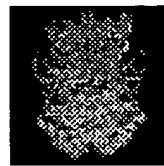
no.: 1.1.1.53

**Authors**

Yang, J.K., Park, M.S., Waldo, G.S., Suh, S.W.

☒ 1NFQ

**Rv2002 gene product from Mycobacterium tuberculosis**

**Characteristics**


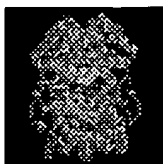

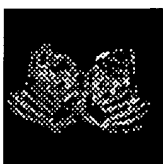

Release Date: 30-Dec-2002 Exp. Method: X Ray Diffraction

Resolution: 2.40 Å

**Classification****Oxidoreductase****Compound**

Polymer: 1 Molecule: Putative oxidoreductase Rv200: Mutation: I6T, V47M, T69K Chains: A,B,C,D EC

---

no.: 1.1.1.53 **Authors****Yang, J.K., Park, M.S., Waldo, G.S., Suh, S.W.**☒ **1NFR****Characteristics****Rv2002 gene product from Mycobacterium tuberculosis****Release Date:** 30-Dec-2002 **Exp. Method:** X Ray Diffraction**Resolution:** 2.10 Å**Classification****Oxidoreductase****Compound**Polymer: 1 Molecule: Putative oxidoreductase Rv200;  
Mutation: I6T, V47(MSE), T69K Chains: A,B,C,D ECno.: 1.1.1.53 **Authors****Yang, J.K., Park, M.S., Waldo, G.S., Suh, S.W.**☒ **1S9C****Characteristics****Crystal structure analysis of the 2-enoyl-CoA hydratase 2 domain of human peroxisomal multifunctional enzyme type 2****Release Date:** 15-Feb-2005 **Exp. Method:** X Ray Diffraction**Resolution:** 3.00 Å**Classification****Lyase****Compound**Polymer: 1 Molecule: Peroxisomal multifunctional enz  
type 2 Fragment: 2-enoyl-coenzyme A hydratase 2  
domain Mutation: S318M, T319A, I559V, T615L  
Chains: A,B,C,D,E,F,G,H,I,J,K,L EC no.: 4.2.1.-**Authors****Koski, M.K., Haapalainen, A.M., Hiltunen, J.K.** 1 2 3 4 5 6

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RESUMED UPDATING

\*\*\*File 141, Reader's Guide Abstracts

\*\*\*

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\*\*\*File 5, BIOSIS Previews - archival data added  
\*\*\*Files 340, 341 & 942, CLAIMS/U.S. Patents - 2006 reload now online

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? s (hydroxysteroid dehydrogenase) and (crystal or crystalline or crystallization or co-crystal or co-crystallization)

2305 HYDROXYSTEROID DEHYDROGENASE  
2448636 CRYSTAL  
551751 CRYSTALLINE  
564845 CRYSTALLIZATION  
101 CO-CRYSTAL

156 CO-CRYSTALLIZATION

S1 63 S (HYDROXYSTEROID DEHYDROGENASE) AND (CRYSTAL OR CRYSTALLINE OR  
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? S (HYDROXYSTEROID DEHYDROGENASE) AND (CRYSTAL OR CRYSTALLINE OR CRYSTALLI?ATION OR CO-  
CRYSTAL OR CO-CRYSTALLI?ATION)

2305 HYDROXYSTEROID DEHYDROGENASE  
2448636 CRYSTAL  
551751 CRYSTALLINE  
572563 CRYSTALLI?ATION  
101 CO-CRYSTAL  
168 CO-CRYSTALLI?ATION

S2 63 S (HYDROXYSTEROID DEHYDROGENASE) AND (CRYSTAL OR CRYSTALLINE OR  
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18887445 Biosis No.: 200600232840

**Bile salt biotransformations by human intestinal bacteria**

2006

3/8/2 (Item 2 from file: 5)

12944008 Biosis No.: 199598411841

**Synthesis of (17R)- and (17S)-17-hydroxy-14, 15-secoandrost-4-en-15-yn-3-one and the X-ray crystal structure of the (17S)-diastereomer**

1995

3/8/3 (Item 3 from file: 5)

12761848 Biosis No.: 199598229681

**Synthesis of (17R)- and (17S)-17-hydroxy-14, 15-secoandrost-4-en-16-yn-3-one and the X-ray crystal structure of the (17S)-diastereomer**

1995

3/8/4 (Item 4 from file: 5)

11428502 Biosis No.: 199294130343

**INHIBITION OF STREPTOMYCES-HYDROGENANS 3-ALPHA 20-BETA HYDROXYSTEROID DEHYDROGENASE BY LICORICE-DERIVED COMPOUNDS AND CRYSTALLIZATION OF AN ENZYME-COFACTOR-INHIBITOR COMPLEX**

1992

3/8/5 (Item 5 from file: 5)

07132040 Biosis No.: 198427047459

**CRYSTALLIZATION AND PRELIMINARY CRYSTALLOGRAPHIC STUDY OF 3-ALPHA 20-BETA HYDROXY STEROID DEHYDROGENASE FROM STREPTOMYCES-HYDROGENANS**

1984

3/8/6 (Item 1 from file: 34)

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15562483 Genuine Article#: 086CK Number of References: 36

**Role of glutamine 148 of human 15-hydroxyprostaglandin dehydrogenase in catalytic oxidation of prostaglandin E-2**

( ABSTRACT AVAILABLE )

Publication date: 20061001

Journal Subject Category: BIOCHEMISTRY & MOLECULAR BIOLOGY; CHEMISTRY, MEDICINAL; CHEMISTRY, ORGANIC

**Descriptors--**Author Keywords: prostaglandins ; 15-hydroxyprostaglandin dehydrogenase ; molecular modeling ; site-directed mutagenesis

**Identifiers--** KeyWord Plus(R): SITE-DIRECTED MUTAGENESIS; DROSOPHILA ALCOHOL-DEHYDROGENASE; SHORT-CHAIN DEHYDROGENASES; CRYSTAL -STRUCTURE; ESCHERICHIA-COLI; 3-ALPHA,20-BETA-HYDROXYSTEROID DEHYDROGENASE; **HYDROXYSTEROID DEHYDROGENASE**; COENZYME SPECIFICITY; ANGSTROM RESOLUTION; CARBONYL REDUCTASE

3/8/7 (Item 2 from file: 34)

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15063260 **Genuine Article#:** 031FY **Number of References:** 11

**Benzothiazole derivatives as novel inhibitors of human 11 beta-hydroxysteroid dehydrogenase type 1**  
( ABSTRACT AVAILABLE )

**Publication date:** 20060327

**Journal Subject Category:** CELL BIOLOGY; ENDOCRINOLOGY & METABOLISM

**Descriptors--**Author Keywords: **hydroxysteroid dehydrogenase** ; 11 beta-HSD1 ; inhibitors ; benzothiazole ; diabetes ; obesity

**Identifiers--** KeyWord Plus(R): TISSUE

3/8/8 (Item 3 from file: 34)

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14008136 **Genuine Article#:** 931PS **Number of References:** 48

**Comparison of crystal structures of human type 3 3 alpha-hydroxysteroid dehydrogenase reveals an "induced-fit" mechanism and a conserved basic motif involved in the binding of androgen**  
( ABSTRACT AVAILABLE )

**Publication date:** 20050600

**Journal Subject Category:** BIOCHEMISTRY & MOLECULAR BIOLOGY

**Descriptors--**Author Keywords: aldo-keto reductase ; **hydroxysteroid dehydrogenase** ; crystal structure ; induced-fit mechanism

**Identifiers--** KeyWord Plus(R): ALDO-KETO REDUCTASE; SITE-DIRECTED MUTAGENESIS; DIHYDRODIOL DEHYDROGENASE; 20-ALPHA-HYDROXYSTEROID DEHYDROGENASE; ALDEHYDE REDUCTASE; MACROMOLECULAR STRUCTURES; TISSUE DISTRIBUTION; YEAST HEXOKINASE; SUBSTRATE; SUPERFAMILY

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13908152 **Genuine Article#:** 924EU **Number of References:** 30

**Crystal structure of murine 11 beta-hydroxysteroid dehydrogenase 1: An important therapeutic target for diabetes**  
( ABSTRACT AVAILABLE )

**Publication date:** 20050510

**Journal Subject Category:** BIOCHEMISTRY & MOLECULAR BIOLOGY

**Identifiers--** KeyWord Plus(R): HEPATIC INSULIN SENSITIVITY; DEHYDROGENASE TYPE-1; **HYDROXYSTEROID DEHYDROGENASE**; ANGSTROM RESOLUTION; REDUCTASE; MICE; CRYSTALLOGRAPHY; ORIENTATION; ACTIVATION; COMPLEXES

3/8/10 (Item 5 from file: 34)

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13578997 **Genuine Article#:** 897DJ **Number of References:** 35

**The crystal structure of guinea pig 11 beta-hydroxysteroid dehydrogenase type 1 provides a model for enzyme-lipid bilayer interactions**

( ABSTRACT AVAILABLE )

**Publication date:** 20050204

**Journal Subject Category:** BIOCHEMISTRY & MOLECULAR BIOLOGY

**Identifiers--** KeyWord Plus(R): SHORT-CHAIN DEHYDROGENASES/REDUCTASES; **HYDROXYSTEROID DEHYDROGENASE**; MACROMOLECULAR STRUCTURES; ALCOHOL-DEHYDROGENASE; ANGSTROM RESOLUTION; RECOGNITION; REFINEMENT; SDR

3/8/11 (Item 6 from file: 34)

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13269418 **Genuine Article#:** 863WX **Number of References:** 31

**Site-directed mutagenesis to enable and improve crystallizability of Candida tropicalis (3R)-hydroxyacyl-CoA dehydrogenase**

( ABSTRACT AVAILABLE )

**Publication date:** 20041105

**Journal Subject Category:** BIOCHEMISTRY & MOLECULAR BIOLOGY; BIOPHYSICS

**Descriptors--**Author Keywords: 17 beta-HSD ; MFE-2 ; beta-oxidation ; peroxisome ; SDR

**Identifiers--** KeyWord Plus(R): PEROXISOMAL MULTIFUNCTIONAL ENZYME; BIFUNCTIONAL PROTEIN-DEFICIENCY; BETA-OXIDATION; RAT-LIVER; **CRYSTAL-STRUCTURE**; **HYDROXYSTEROID DEHYDROGENASE**; RESOLUTION; FAMILY; ACID; SDR

3/8/12 (Item 7 from file: 34)

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13199617 **Genuine Article#:** 857RH **Number of References:** 49

**Structural insights into the neuroprotective-acting carbonyl reductase Sniffer of Drosophila melanogaster**  
( ABSTRACT AVAILABLE )

**Publication date:** 20041001

**Journal Subject Category:** BIOCHEMISTRY & MOLECULAR BIOLOGY

**Descriptors--**Author Keywords: Sniffer ; carbonyl reductase ; X-ray crystal structure ; NADP(+) ; MAD

**Identifiers--** KeyWord Plus(R): CHAIN DEHYDROGENASE/REDUCTASE FAMILY; MOLECULAR REPLACEMENT; **CRYSTAL-STRUCTURE**; OXIDATIVE STRESS; ANGSTROM RESOLUTION; 17-BETA-HYDROXYSTEROID DEHYDROGENASE; **HYDROXYSTEROID DEHYDROGENASE**; ALCOHOL-



## DEHYDROGENASE; ESCHERICHIA-COLI; PROTEIN MODELS

3/8/13 (Item 8 from file: 34)

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13159147 **Genuine Article#:** 853OX **Number of References:** 41

**Crystal structure of human ABAD/HSD10 with a bound inhibitor: Implications for design of Alzheimer's disease therapeutics**

( ABSTRACT AVAILABLE )

**Publication date:** 20040917

**Journal Subject Category:** BIOCHEMISTRY & MOLECULAR BIOLOGY

**Descriptors--Author Keywords:** ABAD ; HSD10 ; Alzheimer's disease ; short-chain dehydrogenase

**Identifiers-- KeyWord Plus(R):** AMYLOID PRECURSOR PROTEIN; COENZYME-A DEHYDROGENASE; ALCOHOL-DEHYDROGENASE; ANGSTROM RESOLUTION; ESCHERICHIA-COLI; BETA-PEPTIDE; 3-HYDROXYACYL-COA DEHYDROGENASE; **HYDROXYSTEROID DEHYDROGENASE**; ENZYMATIC AMPLIFICATION; SINGLE-DOMAIN

3/8/14 (Item 9 from file: 34)

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12638514 **Genuine Article#:** 806FF **Number of References:** 46

**Structure-function of human 3 alpha-hydroxysteroid dehydrogenases: genes and proteins**

( ABSTRACT AVAILABLE )

**Publication date:** 20040227

**Journal Subject Category:** CELL BIOLOGY; ENDOCRINOLOGY & METABOLISM

**Descriptors--Author Keywords:** 3 alpha-hydroxysteroid dehydrogenase (HSD) ; aldo-keto reductase (AKR) ; estrogen receptor

**Identifiers-- KeyWord Plus(R):** ALDO-KETO REDUCTASE; HUMAN DIHYDRODIOL DEHYDROGENASE; ACID-BINDING PROTEIN; HUMAN LIVER; **HYDROXYSTEROID DEHYDROGENASE**; CHLORDECONE REDUCTASE; ANDROGEN METABOLISM; TISSUE DISTRIBUTION; MOLECULAR-CLONING; **CRYSTAL-STRUCTURE**

3/8/15 (Item 10 from file: 34)

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11820071 **Genuine Article#:** 698CH **Number of References:** 104

**Hydroxysteroid dehydrogenases and pre-receptor regulation of steroid hormone action**

( ABSTRACT AVAILABLE )

**Publication date:** 20030500

**Journal Subject Category:** OBSTETRICS & GYNECOLOGY; REPRODUCTIVE BIOLOGY

**Descriptors--Author Keywords:** aldo-keto reductase ; **hydroxysteroid dehydrogenase** ; short-chain dehydrogenase or reductase ; steroid receptor

**Identifiers-- KeyWord Plus(R):** HUMAN 17-BETA-HYDROXYSTEROID DEHYDROGENASE; APPARENT MINERALOCORTICOID EXCESS; KETO REDUCTASE SUPERFAMILY; ACID-BINDING PROTEIN;

HUMAN BREAST-CARCINOMA; 11-BETA-HYDROXYSTEROID DEHYDROGENASE; 3-ALPHA-HYDROXYSTEROID DEHYDROGENASE; ESTROGEN-RECEPTOR; TYPE-5 17-BETA-HYDROXYSTEROID-DEHYDROGENASE; PROSTATE-CANCER

3/8/16 (Item 11 from file: 34)

SciSearch(R) Cited Ref Sci

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11465693 **Genuine Article#:** 655KP **Number of References:** 28

**Examination of the differences in structure-function of human and rat 3 alpha-hydroxysteroid dehydrogenase ( ABSTRACT AVAILABLE )**

**Publication date:** 20030201

**Journal Subject Category:** BIOCHEMISTRY & MOLECULAR BIOLOGY; PHARMACOLOGY & PHARMACY; TOXICOLOGY

**Descriptors--Author Keywords:** hydroxysteroid dehydrogenase ; aldo-keto reductase ; bile acids ; ursodeoxycholate ; testosterone

**Identifiers-- KeyWord Plus(R):** KETO REDUCTASE SUPERFAMILY; ACID-BINDING PROTEIN; LIVER DIHYDRODIOL DEHYDROGENASES; TISSUE DISTRIBUTION; KINETIC MECHANISM; MOLECULAR-CLONING; CRYSTAL-STRUCTURE; ALDOSE REDUCTASE; MUTAGENESIS; EXPRESSION

3/8/17 (Item 12 from file: 34)

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11465678 **Genuine Article#:** 655KP **Number of References:** 34

**Short-chain dehydrogenases/reductases (SDR): the 2002 update ( ABSTRACT AVAILABLE )**

**Publication date:** 20030201

**Journal Subject Category:** BIOCHEMISTRY & MOLECULAR BIOLOGY; PHARMACOLOGY & PHARMACY; TOXICOLOGY

**Descriptors--Author Keywords:** short-chain dehydrogenases/reductases ; structure-function relationships ; hydroxysteroid dehydrogenase ; reaction mechanism ; metabolic disease

**Identifiers-- KeyWord Plus(R):** MAGNAPORTHE-GRISEA; CRYSTAL-STRUCTURE; ACTIVE-SITE; TRIHYDROXYNAPHTHALENE REDUCTASE; ALCOHOL-DEHYDROGENASE; TERNARY COMPLEX; LIVER ALCOHOL; MECHANISM; TYPE-1; 17-BETA-HYDROXYSTEROID-DEHYDROGENASE

3/8/18 (Item 13 from file: 34)

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10248748 **Genuine Article#:** 502GN **Number of References:** 31

**Meta-cleavage enzyme gene tesB is necessary for testosterone degradation in Comamonas testosteroni TA441 ( ABSTRACT AVAILABLE )**

**Publication date:** 20011200

**Journal Subject Category:** MICROBIOLOGY

**Descriptors--**Author Keywords: biodegradation ; steroid hormone ; seco-steroid

**Identifiers--** KeyWord Plus(R): PSEUDOMONAS-TESTOSTERONI; DELTA-5-3-KETOSTEROID ISOMERASE; **HYDROXYSTEROID DEHYDROGENASE**; ACIDAMINOCOCCUS-FERMENTANS; EXTRADIOL DIOXYGENASE; BIPHENYL DEGRADATION; NUCLEOTIDE-SEQUENCE; MOLECULAR-CLONING; **CRYSTAL-STRUCTURE**; ESCHERICHIA-COLI

3/8/19 (Item 14 from file: 34)

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09516805 **Genuine Article#:** 415FT **Number of References:** 43

**17 beta-hydroxysteroid dehydrogenase from the fungus Cochliobolus lunatus: structural and functional aspects**

( ABSTRACT AVAILABLE )

**Publication date:** 20010130

**Journal Subject Category:** BIOCHEMISTRY & MOLECULAR BIOLOGY; BIOLOGY; CHEMISTRY, MEDICINAL; CHEMISTRY, MULTIDISCIPLINARY; PHARMACOLOGY & PHARMACY; TOXICOLOGY

**Descriptors--**Author Keywords: 17 beta-hydroxysteroid dehydrogenase ; short chain dehydrogenases/reductases ; fungi ; Cochliobolus lunatus

**Identifiers--** KeyWord Plus(R): **CRYSTAL-STRUCTURE**; MULTIFUNCTIONAL ENZYME; ESCHERICHIA-COLI; **HYDROXYSTEROID DEHYDROGENASE**; SCHIZOSACCHAROMYCES-POMBE; ALCOHOL-DEHYDROGENASE; MAGNAPORTHE-GRISEA; TERNARY COMPLEX; HORMONE ACTION; REDUCTASE

3/8/20 (Item 15 from file: 34)

SciSearch(R) Cited Ref Sci

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09516798 **Genuine Article#:** 415FT **Number of References:** 44

**3 alpha-hydroxysteroid dehydrogenase/carbonyl reductase from Comamonas testosteroni: biological significance, three-dimensional structure and gene regulation**

( ABSTRACT AVAILABLE )

**Publication date:** 20010130

**Journal Subject Category:** BIOCHEMISTRY & MOLECULAR BIOLOGY; BIOLOGY; CHEMISTRY, MEDICINAL; CHEMISTRY, MULTIDISCIPLINARY; PHARMACOLOGY & PHARMACY; TOXICOLOGY

**Descriptors--**Author Keywords: carbonyl reductase ; Comamonas testosteroni ; crystal structure ; 3 alpha-hydroxysteroid dehydrogenase ; transcriptional regulation

**Identifiers--** KeyWord Plus(R): SHORT-CHAIN DEHYDROGENASES; LUNG CARBONYL REDUCTASE; PSEUDOMONAS-TESTOSTERONI; ESCHERICHIA-COLI; 3-ALPHA,20-BETA-HYDROXYSTEROID DEHYDROGENASE; **HYDROXYSTEROID DEHYDROGENASE**; 3-DIMENSIONAL STRUCTURE; COENZYME SPECIFICITY; MOLECULAR-CLONING; **CRYSTAL -STRUCTURE**

3/8/21 (Item 16 from file: 34)

SciSearch(R) Cited Ref Sci

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08632739 **Genuine Article#:** 310FX **Number of References:** 61

**Molecular and structural aspects of xenobiotic carbonyl metabolizing enzymes. Role of reductases and dehydrogenases in xenobiotic phase I reactions**

( ABSTRACT AVAILABLE )

**Publication date:** 20000403

**Journal Subject Category:** TOXICOLOGY; PHARMACOLOGY & PHARMACY

**Descriptors--** Author Keywords: xenobiotic carbonyl metabolism ; alcohol dehydrogenase ; aldehyde dehydrogenase ; carbonyl reduction ; quinone reductase ; **hydroxysteroid dehydrogenase** ; aldo-keto reductases ; short-chain dehydrogenases/reductases

**Identifiers--** Key Word Plus(R): ALDO-KETO REDUCTASE; MITOCHONDRIAL ALDEHYDE DEHYDROGENASE; SHORT-CHAIN DEHYDROGENASE/REDUCTASE; 3-DIMENSIONAL STRUCTURE; ALCOHOL-DEHYDROGENASE; DIHYDRODIOL DEHYDROGENASE; ANGSTROM RESOLUTION; **CRYSTAL-STRUCTURE**; 11-BETA-HYDROXYSTEROID DEHYDROGENASE; HYDROXYSTEROID DEHYDROGENASES

3/8/22 (Item 17 from file: 34)

SciSearch(R) Cited Ref Sci

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07829664 **Genuine Article#:** 212BN **Number of References:** 59

**Molecular determinants of steroid recognition and catalysis in aldo-keto reductases. Lessons from 3 alpha-hydroxysteroid dehydrogenase**

( ABSTRACT AVAILABLE )

**Publication date:** 19990400

**Journal Subject Category:** BIOCHEMISTRY & MOLECULAR BIOLOGY; ENDOCRINOLOGY & METABOLISM

**Identifiers--** Key Word Plus(R): DIHYDRODIOL DEHYDROGENASE; 20-ALPHA-HYDROXYSTEROID DEHYDROGENASE; 17-BETA-HYDROXYSTEROID DEHYDROGENASES; **HYDROXYSTEROID DEHYDROGENASE**; SUBSTRATE-SPECIFICITY; **CRYSTAL-STRUCTURE**; HORMONE ACTION; HUMAN PROSTATE; DOG PROSTATE; GENE FAMILY

3/8/23 (Item 18 from file: 34)

SciSearch(R) Cited Ref Sci

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05479933 **Genuine Article#:** WB623 **Number of References:** 35

**ACTIVE-SITE-DIRECTED MUTAGENESIS OF 3-BETA/17-BETA-HYDROXYSTEROID DEHYDROGENASE ESTABLISHES DIFFERENTIAL-EFFECTS ON SHORT-CHAIN DEHYDROGENASE/REDUCTASE REACTIONS**

( Abstract Available )

**Journal Subject Category:** BIOCHEMISTRY & MOLECULAR BIOLOGY

**Identifiers--** Key Words Plus: DROSOPHILA ALCOHOL-DEHYDROGENASE; PSEUDOMONAS-TESTOSTERONI; 15-HYDROXYPROSTAGLANDIN DEHYDROGENASE; 3-ALPHA,20-BETA-HYDROXYSTEROID DEHYDROGENASE; **HYDROXYSTEROID DEHYDROGENASE**; 3-DIMENSIONAL STRUCTURE; HUMAN ALDEHYDE; REDUCTASE; SUPERFAMILY; EXPRESSION

**Research Fronts:** 95-0536 002 (11-BETA-HYDROXYSTEROID DEHYDROGENASE; FETAL ORIGINS OF CORONARY HEART-DISEASE; APPARENT MINERALOCORTICOID EXCESS SYNDROMES)

95-3190 001 (INCREASED ABUNDANCE OF SPECIFIC SKELETAL-MUSCLE PROTEIN-TYROSINE PHOSPHATASES; ALPHA-B-CRYSTALLIN EXPRESSION)

95-8203 001 (PROTEIN STABILITY; EQUILIBRIUM DENATURATION; TRYPTOPHAN-CONTAINING ALPHA-SUBUNITS OF THE ESCHERICHIA-COLI TRYPTOPHAN SYNTHASE; UNFOLDING THERMODYNAMICS)

3/8/24 (Item 19 from file: 34)

SciSearch(R) Cited Ref Sci

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02060206 **Genuine Article#:** JX778 **Number of References:** 27

**RAPID PURIFICATION YIELDING HIGHLY-ACTIVE 17-BETA-HYDROXYSTEROID DEHYDROGENASE - APPLICATION OF HYDROPHOBIC INTERACTION AND AFFINITY FAST PROTEIN LIQUID-CHROMATOGRAPHY**

( Abstract Available )

**Journal Subject Category:** CHEMISTRY, ANALYTICAL

**Identifiers-- Key Words Plus:** TRANSFER RNA-SYNTHETASE; **HYDROXYSTEROID DEHYDROGENASE;** ESCHERICHIA-COLI; **CRYSTALLIZATION**

**Research Fronts:** 90-3110 001 (IDENTIFICATION OF FRAGMENTS; CORTICOSTEROIDS INCREASE LIPOCORTIN-I; RAS ADENYLATE-CYCLASE PATHWAY; HEAT-SHOCK PROTEIN HSP70 FAMILY)

90-3605 001 (METASTATIC PROSTATE-CANCER; ANTIANDROGEN FLUTAMIDE; LUTEINIZING-HORMONE-RELEASING HORMONE AGONIST THERAPY; PHASE-II MULTICENTER TRIAL; THERAPEUTIC OPTIONS)

3/8/25 (Item 1 from file: 73)

14275389 **EMBASE No:** 2007038012

**Discovery of adamantane ethers as inhibitors of 11beta-HSD-1: Synthesis and biological evaluation**

**Publication Date:** 01 FEB 2007

3/8/26 (Item 2 from file: 73)

13679174 **EMBASE No:** 2003089936

**The aldo-keto reductase superfamily homepage**

**Publication Date:** 01 FEB 2003

3/8/27 (Item 3 from file: 73)

13136544 **EMBASE No:** 2005183902

**Novel and potent 17beta-hydroxysteroid dehydrogenase type 1 inhibitors**

**Publication Date:** 21 APR 2005

3/8/28 (Item 4 from file: 73)

12620034 **EMBASE No:** 2004212254

**Alanine Scanning Mutagenesis of the Testosterone Binding Site of Rat 3alpha-Hydroxysteroid Dehydrogenase Demonstrates Contact Residues Influence the Rate-Determining Step**

**Publication Date:** 18 MAY 2004

3/8/29 (Item 5 from file: 73)

12540423 **EMBASE No:** 2004135555

**Human cytosolic 3alpha-hydroxysteroid dehydrogenases of the aldo-keto reductase superfamily display significant 3beta-hydroxysteroid dehydrogenase activity: Implications for steroid hormone metabolism and action**

**Publication Date:** 12 MAR 2004

3/8/30 (Item 6 from file: 73)

12112040 **EMBASE No:** 2003223599

**The structural revolution**

**Publication Date:** 01 MAY 2003

3/8/31 (Item 7 from file: 73)

11940575 **EMBASE No:** 2003047104

**Directed evolution approach to a structural genomics project: Rv2002 from Mycobacterium tuberculosis**

**Publication Date:** 21 JAN 2003

3/8/32 (Item 8 from file: 73)

11294113 **EMBASE No:** 2001306196

**Crystal structure of human type III 3alpha-hydroxysteroid dehydrogenase/bile acid binding protein complexed with NADPSUP<sup>+</sup> and ursodeoxycholate**

**Publication Date:** 28 AUG 2001

3/8/33 (Item 9 from file: 73)

11044901    **EMBASE No:** 2000386862

**Recognition of structurally diverse substrates by type II 3-hydroxyacyl-CoA dehydrogenase (HADH II)/amyloid-beta binding alcohol dehydrogenase (ABAD)**

**Publication Date:** 20 OCT 2000

3/8/34 (Item 10 from file: 73)

07424826    **EMBASE No:** 1998335253

**Roles of the Ser146, Tyr159, and Lys163 residues in the catalytic action of 7alpha-hydroxysteroid dehydrogenase from Escherichia coli**

**Publication Date:** 1998

3/8/35 (Item 11 from file: 73)

06804796    **EMBASE No:** 1997087281

**Hydroxysteroid dehydrogenases: New drug targets of the aldo-keto reductase superfamily**

**Publication Date:** 1997

3/8/36 (Item 12 from file: 73)

06765152    **EMBASE No:** 1997046644

**The key role of 17beta-hydroxysteroid dehydrogenases in sex steroid biology**

**Publication Date:** 1997

3/8/37 (Item 13 from file: 73)

06543029    **EMBASE No:** 1996193969

**Crystal structures of the binary and ternary complexes of 7alpha- hydroxysteroid dehydrogenase from Escherichia coli**

**Publication Date:** 1996

3/8/38 (Item 14 from file: 73)

06415889 EMBASE No: 1996079264

**Crystallization and crystal packing of recombinant 3 (or 17) beta-hydroxysteroid dehydrogenase from *Comamonas testosteroni* ATTC 11996**

**Publication Date:** 1996

3/8/39 (Item 15 from file: 73)

06013797 EMBASE No: 1995042602

**Human 17beta-hydroxysteroid dehydrogenase: Optical properties of its complex with NADPsup +**

**Publication Date:** 1995

3/8/40 (Item 16 from file: 73)

05873176 EMBASE No: 1994283158

**Secosteroid mechanism-based inactivators and site-directed mutagenesis as probes for steroid hormone recognition by 3alpha-hydroxysteroid dehydrogenase**

**Publication Date:** 1994

3/8/41 (Item 17 from file: 73)

02592592 EMBASE No: 1984211550

**Crystallization and preliminary crystallographic investigation of 3alpha,20beta-hydroxysteroid dehydrogenase from *Streptomyces hydrogenans***

**Publication Date:** 1984

3/8/42 (Item 18 from file: 73)

02202897 EMBASE No: 1982120058

**Androstenedione metabolism by human lymphocytes**

**Publication Date:** 1982

3/8/43 (Item 19 from file: 73)



01927723 EMBASE No: 1981106890

**Sertoli cell capacity to metabolize progesterone: Variation with age and the effect of follicle-stimulating hormone**

**Publication Date:** 1981

3/8/44 (Item 20 from file: 73)

01738222 EMBASE No: 1980043973

**Metabolism of C<sub>19</sub>-radiosteroids by explants of canine prostate and epididymis with disposition as hydroxylated products: A possible mechanism for androgen inactivation**

**Publication Date:** 1979

3/8/45 (Item 21 from file: 73)

00304769 EMBASE No: 1975077095

**Properties of crystalline 3 $\beta$  hydroxysteroid oxidase of *Brevibacterium sterolicum***

**Publication Date:** 1974

3/8/46 (Item 22 from file: 73)

00153764 EMBASE No: 1974143883

**Isolation and crystallization of extracellular 3 $\beta$  hydroxysteroid oxidase of *Brevibacterium sterolicum* nov. sp.**

**Publication Date:** 1973

3/8/47 (Item 1 from file: 98)

General Sci Abs

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5753134 H.w. Wilson Record Number: BGSA05225461

**Crystal Structure of Murine 11 $\beta$ -Hydroxysteroid Dehydrogenase 1: An Important Therapeutic Target for Diabetes**

**Descriptors:**

**Hydroxysteroid dehydrogenase--Crystallography**

May 10 2005 (20050510 )

3/8/48 (Item 2 from file: 98)

General Sci Abs

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04672023 H.w. Wilson Record Number: BGSA01172023

**Crystal structure of human type III 3 $\alpha$ -hydroxysteroid dehydrogenase/bile acid binding protein complexed with NADP<sup>+</sup> and ursodeoxycholate.**

**Descriptors:**

Protein binding; **Hydroxysteroid dehydrogenase**; Binding sites (Biochemistry); Bile acids and salts;

Dehydrogenases--Crystallography

Aug. 28 2001 (20010828 )

3/8/49 (Item 3 from file: 98)

General Sci Abs

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04015049 H.w. Wilson Record Number: BGSA99015049

**Structure of the ternary complex of human 17 $\beta$ -hydroxysteroid dehydrogenase type 1 with 3-hydroxyestra-1,3,5,7-tetraen-17-one (equilin) and NADP<sup>+</sup>.**

**Descriptors:**

**Hydroxysteroid dehydrogenase**; Estrogens--Therapeutic uses

Feb. 2 1999 (19990202 )

3/8/50 (Item 4 from file: 98)

General Sci Abs

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03285913 H.w. Wilson Record Number: BGSA96035913

**Structure of 3 $\alpha$ -hydroxysteroid/dihydrodiol dehydrogenase complexed with NADP<sup>+</sup>.**

**Descriptors:**

Liver--Enzymes; Nicotinamide nucleotides; **Hydroxysteroid dehydrogenase**; Dehydrogenases--Crystallography;

Binding sites (Biochemistry)

Aug. 20 1996 (19960820 )

3/8/51 (Item 5 from file: 98)

General Sci Abs

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03276873 H.w. Wilson Record Number: BGSA96026873

**Crystal structures of the binary and ternary complexes of 7 $\alpha$ -hydroxysteroid dehydrogenase from Escherichia coli.**

**Descriptors:**

Dehydrogenases--Crystallography; **Hydroxysteroid dehydrogenase**  
June 18 1996 (19960618 )

3/8/52 (Item 6 from file: 98)

General Sci Abs

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02785716 **H.w. Wilson Record Number:** BGSA94035716

**Secosteroid mechanism-based inactivators and site-directed mutagenesis as probes for steroid hormone recognition by 3 $\alpha$ -hydroxysteroid dehydrogenase.**

**Descriptors:**

Metabolic inhibitors--Enzymes; Molecular recognition; Molecules--Models; **Hydroxysteroid dehydrogenase**  
Aug. 30 1994 (19940830 )

3/8/53 (Item 1 from file: 266)

FEDRIP

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00586478

**Identifying No.:** 5R01DK047015-13 **Agency Code:** CRISP

**Structure/Function of Steroid Hormone Transforming AKRs**

**Descriptors:** testosterone; chemical kinetics; stereochemistry; polymerase chain reaction ; fluorescence spectrometry; X ray crystallography; cofactor; steroid hormone; enzyme mechanism; enzyme structure; enzyme substrate complex; isozyme; site directed mutagenesis; point mutation; aldehyde reductase; **hydroxysteroid dehydrogenase**; **crystallization**; stop flow technique; protein structure function; chimeric protein; synthetic protein; nicotinamide adenine dinucleotide; NAD(H) phosphate; active site

? t s3/full/47 25 10 9

3/9/47 (Item 1 from file: 98)

General Sci Abs

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5753134 **H.w. Wilson Record Number:** BGSA05225461

**Crystal Structure of Murine 11 $\beta$ -Hydroxysteroid Dehydrogenase 1: An Important Therapeutic Target for Diabetes**

Zhang, Jiandong

Osslund, Timothy D; Plant, Matthew H

Biochemistry ( American Chemical Society ) v. 44 no18 (May 10 2005) p. 6948-57

**Document Type:** Feature Article

ISSN: 0006-2960

**Language:** English

**Country Of Publication:** United States

**Record Type:** Citation **Record Status:** Corrected or revised record

**Descriptors:**

**Hydroxysteroid dehydrogenase--Crystallography**

3/9/25 (Item 1 from file: 73)

Fulltext available through: [ScienceDirect \(Elsevier\)](#) [USPTO Full Text Retrieval Options](#)

EMBASE

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14275389 **EMBASE No:** 2007038012

**Discovery of adamantane ethers as inhibitors of 11beta-HSD-1: Synthesis and biological evaluation**

Patel J.R.; Shuai Q.; Dinges J.; Winn M.; Pliushchev M.; Fung S.; Monzon K.; Chiou W.; Wang J.; Pan L.; Wagaw S.; Engstrom K.; Kerdesky F.A.; Longenecker K.; Judge R.; Qin W.; Imade H.M.; Stolarik D.; Beno D.W.A.; Brune M.; Chovan L.E.; Sham H.L.; Jacobson P.; Link J.T.

J.R. Patel, Global Pharmaceutical Research and Development, Abbott Laboratories, R43G, 200 Abbott Park Road, Abbott Park, IL 60064-6217 United States

**Author Email:** jyoti.patel@abbott.com

Bioorganic and Medicinal Chemistry Letters ( BIOORG. MED. CHEM. LETT. ) ( United Kingdom ) 01 FEB 2007 , 17/3 (750-755)

**CODEN:** BMCLE **ISSN:** 0960-894X

**Publisher Item Identifier:** S0960894X06012583

**Document Type:** Journal ; Article

**Language:** ENGLISH **Summary Language:** ENGLISH

**Number Of References:** 23

A novel class of adamantane ethers 11beta-hydroxysteroid hydrogenase type I inhibitors has been discovered. These compounds have excellent HSD-1 potency and selectivity against HSD-2. The structure-activity relationships, selectivity, metabolism, PK, ex vivo pharmacodynamic data, and an X-ray **crystal** structure of one of these inhibitors bound to h-HSD-1 are discussed. (c) 2006 Elsevier Ltd. All rights reserved.

#### **DRUG DESCRIPTORS:**

\* 11beta hydroxysteroid dehydrogenase; \*adamantane derivative--drug analysis --an; \*adamantane derivative--drug development--dv; \*adamantane derivative --intravenous drug administration--iv; \*adamantane derivative--oral drug administration--po; \*adamantane derivative--pharmacokinetics--pk; \* adamantane derivative--pharmacology--pd; \*ether derivative--drug analysis --an; \*ether derivative--drug development--dv; \*ether derivative --intravenous drug administration--iv; \*ether derivative--oral drug administration--po; \*ether derivative--pharmacokinetics--pk; \*ether derivative--pharmacology--pd; \*oxidoreductase inhibitor

**hydroxysteroid dehydrogenase**

#### **MEDICAL DESCRIPTORS:**

IC 50; X ray crystallography; animal tissue; article; biological activity; controlled study; **crystal** structure; drug bioavailability; drug clearance; drug half life; drug metabolism; drug potency; drug selectivity; drug synthesis; ex vivo study; human; mouse; nonhuman; pharmacodynamics; single drug dose; structure activity relation

**CAS Registry Number:** 9041-46-7 (11beta hydroxysteroid dehydrogenase); 9001-56-3 ( **hydroxysteroid dehydrogenase**)

**SECTION HEADINGS:**

030 Clinical and Experimental Pharmacology

037 Drug Literature Index

3/9/10 (Item 5 from file: 34)

Fulltext available through: [American Society for Biochemistry and Molecular Biology \(ASBMB\)](#) [USPTO Full Text Retrieval Options](#)

SciSearch(R) Cited Ref Sci

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13578997 **Genuine Article#:** 897DJ **Number of References:** 35

**The crystal structure of guinea pig 11 beta-hydroxysteroid dehydrogenase type 1 provides a model for enzyme-lipid bilayer interactions**

**Author:** Ogg D; Elleby B; Norstrom C; Stefansson K; Abrahmsen L; Oppermann U; Svensson S (REPRINT)

**Corporate Source:** Biovitrum,Dept Struct Chem,SE-11276 Stockholm//Sweden/ (REPRINT); Biovitrum,Dept Struct Chem,SE-11276 Stockholm//Sweden/; Karolinska Inst,Dept Med Biochem & Biophys,SE-17177 Stockholm//Sweden/ ( Stefan.Svensson@biovitrum.com )

**Journal:** JOURNAL OF BIOLOGICAL CHEMISTRY , 2005 , V 280 , N5 ( FEB 4 ) , P 3789-3794

**ISSN:** 0021-9258 **Publication date:** 20050204

**Publisher:** AMER SOC BIOCHEMISTRY MOLECULAR BIOLOGY INC , 9650 ROCKVILLE PIKE, BETHESDA, MD 20814-3996 USA

**Language:** English **Document Type:** ARTICLE

**Geographic Location:** Sweden

**Journal Subject Category:** BIOCHEMISTRY & MOLECULAR BIOLOGY

**Abstract:** The metabolic reduction of 11-keto groups in glucocorticoid steroids such as cortisone leads to the nuclear receptor ligand cortisol. This conversion is an example of pre-receptor regulation and constitutes a novel pharmacological target for the treatment of metabolic disorders such as insulin resistance and possibly other derangements observed in the metabolic syndrome, such as hyperlipidemia, hypertension, and lowered insulin secretion. This reaction is carried out by the NADPH-dependent type 1 11beta-hydroxysteroid dehydrogenase (11beta-HSD1), an enzyme attached through an integral N-terminal transmembrane helix to the lipid bilayer and located with its active site within the lumen of the endoplasmic reticulum. Here we report, the

**crystal** structure of recombinant guinea pig 11beta-HSD1. This variant was determined in complex with NADP at 2.5 Å resolution and crystallized in the presence of detergent and guanidinium hydrochloride. The overall structure of guinea pig 11beta-HSD1 shows a clear relationship to other members of the superfamily of short-chain dehydrogenases/reductases but harbors a unique C-terminal helical segment that fulfills three essential functions and accordingly is involved in subunit interactions, contributes to active site architecture, and is necessary for lipid-membrane interactions. The structure provides a model for enzyme-lipid bilayer interactions and suggests a funneling of lipophilic substrates such as steroid hormones from the hydrophobic membrane environment to the enzyme active site.

**Identifiers-- Key Word Plus(R):** SHORT-CHAIN DEHYDROGENASES/REDUCTASES; **HYDROXYSTEROID DEHYDROGENASE**; MACROMOLECULAR STRUCTURES; ALCOHOL-DEHYDROGENASE; ANGSTROM RESOLUTION; RECOGNITION; REFINEMENT; SDR

**Cited References:**

ACTA CRYSTALLOGR D, 1994, V50, P760

ABRAHAMS JP, 1996, V52, P30, ACTA CRYSTALLOGR D 1  
 AGARWAL AK, 1995, V1248, P70, BBA-PROTEIN STRUCT M  
 BARF T, 2002, V45, P3813, J MED CHEM  
 BENACH J, 1998, V282, P383, J MOL BIOL  
 BENACH J, 2002, V41, P14659, BIOCHEMISTRY-US  
 BLUM A, 2000, V276, P428, BIOCHEM BIOPH RES CO  
 DAVANI B, 2000, V275, P34841, J BIOL CHEM  
 EKLUND H, 1974, V44, P200, FEBS LETT  
 ELLEBY B, 2004, V1700, P199, BBA-PROTEINS PROTEOM  
 FILLING C, 2001, V289, P712, BIOCHEM BIOPH RES CO  
 FILLING C, 2002, V277, P25677, J BIOL CHEM  
 GHOSH D, 2001, V130, P637, CHEM-BIOL INTERACT  
 JONES TA, 1991, V47, P110, ACTA CRYSTALLOGR A  
 JORNvall H, 1975, V54, P297, FEBS LETT  
 KALLBERG Y, 2002, V269, P4409, EUR J BIOCHEM  
 KLEYWEGT GJ, 1994, V50, P178, ACTA CRYSTALLOGR D 2  
 MURSHUDOV GN, 1997, V53, P240, ACTA CRYSTALLOGR D 3  
 NOBEL S, 2001, V268, P4113, EUR J BIOCHEM  
 OBEID J, 1992, V188, P222, BIOCHEM BIOPH RES CO  
 OPPERMANN UCT, 1997, V249, P355, EUR J BIOCHEM  
 OPPERMANN UCT, 1997, V36, P34, BIOCHEMISTRY-US  
 OPPERMANN UCT, 2001, V130, P699, CHEM-BIOL INTERACT  
 OPPERMANN U, 2003, V143, P247, CHEM-BIOL INTERACT  
 OTWINOWSKI Z, 1997, V276, P307, METHOD ENZYMOL  
 OZOLS J, 1995, V270, P2305, J BIOL CHEM  
 PERRAKIS A, 1999, V6, P458, NAT STRUCT BIOL  
 PICOT D, 1994, V367, P243, NATURE  
 SECKL JR, 2001, V142, P1371, ENDOCRINOLOGY  
 SHAFQAT N, 2003, V278, P2030, J BIOL CHEM  
 STEWART PM, 1999, V57, P249, VITAM HORM  
 TANAKA N, 1996, V35, P7715, BIOCHEMISTRY-US  
 VONRHEIN C, 2003, AUTOSHARP AUTOMATED  
 WALKER BR, 2003, V7, P771, EXPERT OPIN THER TAR  
 WENDT KU, 1997, V277, P1811, SCIENCE

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**Crystal structure of murine 11 beta-hydroxysteroid dehydrogenase 1: An important therapeutic target for diabetes**

**Author:** Zhang JD (REPRINT) ; Osslund TD; Plant MH; Clogston CL; Nybo RE; Xiong F; Delaney JM; Jordan SR  
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**Abstract:** 11 $\beta$ -Hydroxysteroid dehydrogenase type 1 (11 $\beta$ -HSD1) catalyzes the conversion of 11-dehydrocorticosterone to its active form corticosterone in rodents (or cortisone to cortisol in humans). The reductive reaction of the 11-keto to 11-hydroxyl is the pivotal switch in the activation of glucocorticoids. An excess of active glucocorticoids has been shown to play a key role in metabolic disorders such as diabetes and obesity. Therefore, 11 $\beta$ -HSD1 represents an important therapeutic target for the treatment of these diseases. To facilitate the iterative design of inhibitors, we have crystallized and determined the three-dimensional structures of a binary complex of murine 11 $\beta$ -HSD1 with NADP(H) to a resolution of 2.3 Å; and of a ternary complex with corticosterone and NADP(H) to a resolution of 3.0 Å; by X-ray crystallography. The enzyme forms a homodimer in the crystal and has a fold similar to those of other members of the family of short chain steroid dehydrogenases/reductases (SDRs). The structure shows a novel folding feature at the C-terminus of the enzyme. The C-terminal helix insertions provide additional dimer contacts, exert an influence on the conformations of the substrate binding loops, and present hydrophobic regions for potential membrane attachment. The structure also reveals how 11 $\beta$ -HSD1 achieves its selectivity for its substrate.

**Identifiers-- KeyWord Plus(R):** HEPATIC INSULIN SENSITIVITY; DEHYDROGENASE TYPE-1; HYDROXYSTEROID DEHYDROGENASE; ÅNGSTROM RESOLUTION; REDUCTASE; MICE; CRYSTALLOGRAPHY; ORIENTATION; ACTIVATION; COMPLEXES

**Cited References:**

- ALBERTS P, 2002, V45, P1528, DIABETOLOGIA  
ATANASOV AG, 2004, V571, P129, FEBS LETT  
BAILEY S, 1994, V50, P760, ACTA CRYSTALLOGR D  
BLUM A, 2000, V276, P428, BIOCHEM BIOPH RES CO  
BRUNGER AT, 1998, V54, P905, ACTA CRYSTALLOGR D 5  
DUAX WL, 2003, V53, P931, PROTEINS  
FRICK C, 2004, V279, P31131, J BIOL CHEM  
GHOSH D, 1995, V3, P503, STRUCTURE  
GHOSH D, 1991, V88, P10064, P NATL ACAD SCI USA  
HAAPALAINEN AM, 2003, V11, P87, STRUCTURE  
HOSFIELD DJ, IN PRESS J BIOL CHEM  
KOTELEVTSYEV Y, 1997, V94, P14924, P NATL ACAD SCI USA  
LACEY DL, 1998, V93, P165, CELL  
LESK AM, 1995, V5, P775, CURR OPIN STRUC BIOL  
LIAO DI, 2001, V9, P19, STRUCTURE  
LOCONTE L, 1999, V285, P2177, J MOL BIOL  
MASER E, 2002, V41, P2459, BIOCHEMISTRY-US  
MASUZAKI H, 2003, V112, P83, J CLIN INVEST  
MASUZAKI H, 2001, V294, P2166, SCIENCE  
MORTON NM, 2001, V276, P41293, J BIOL CHEM  
ODERMATT A, 1999, V274, P28762, J BIOL CHEM  
OTWINOWSKI Z, 1997, V276, P307, METHOD ENZYMOL  
OZOLS J, 1995, V270, P2305, J BIOL CHEM  
ROZWARSKI DA, 1999, V274, P15582, J BIOL CHEM

SAWICKI MW, 1999, V96, P840, P NATL ACAD SCI USA  
STEWART PM, 1999, V57, P249, VITAM HORM  
TANAKA N, 1996, V35, P7715, BIOCHEMISTRY-US  
TERWILLIGER TC, 1999, V55, P849, ACTA CRYSTALLOGR D 4  
TOMLINSON JW, 2001, V15, P61, BEST PRACT RES CL EN  
WALKER BR, 1995, V80, P3155, J CLIN ENDOCR METAB

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